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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,251	04/22/2004	Jeong Sik Lee		7269
7590 12/28/2005			EXAMINER	
DOHYUN PARK Apt. #2H 200 Old Palisade road Fort Lee, NJ 07024			KAUFFMAN, BRIAN K	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 12/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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## Office Action Summary

Application No.

10/829,251

Applicant(s)

LEE, JEONG SIK

Examiner

Brian K. Kauffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The examiner acknowledges that claims 3 and 9 have been

#### ***Specification***

The specification is objected to because it is replete with terms, which are not clear, concise and exact. Examples of some unclear, inexact or verbose terms used in the specification are: page 3, line 6, the word "wearer=s" should be replaced with "wearer's. On page 3, line 16, the word "in" should be inserted before "addition", "have" should be replaced with "having", and "keep" should be replaced with "keeping". The word "the" should be inserted where necessary in order to make the specification grammatically correct.

#### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the coil shape of the weft yarn must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claim 1 recites the limitation "the stitching portion" in line 8. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2 and 4-5 are rejected under 35 U.S.C. 103(a) as being obvious over Dean (4,107,371) in view of Kitamura (5,387,300).

In regard to claim 1, Dean discloses a sweatband using monofilament yarn for a cap, the sweatband is woven with monofilament and multifilament yarn in the weft and warp directions respectively. The yarns comprise of nylon and polyester and do not contain polyurethane (col. 2, lines 5-7, 17-18, and 35-40). The most important characteristic of the instant invention is that it is stiff enough in one direction to reinforce the soft structure of the hat while being flexible enough in the other direction to adapt to the shape of the hat. Dean discloses that multifilament yarns provide flexibility while monofilament yarns provide rigidity (col. 2, lines 5-8 and col. 3, lines 5-9) and that fabric that is relatively stiff in one direction is widely used in the production of apparel (col. 1, lines 11-13). The nature of a woven fabric allows for the weft and warp directions to be interchangeable. Because of this, it is not important that the monofilament yarn is in the warp direction and the multifilament yarn is in the weft direction. It is only important that the vertical direction comprises a monofilament yarn for support and the horizontal direction comprises a multifilament yarn for flexibility. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the monofilament yarn in the warp direction and the multifilament yarn in the weft direction as taught by Dean because the warp and weft directions are interchangeable as long as the monofilament yarn is used in the vertical direction and multifilament yarn is used in the horizontal direction.

Although Dean does not specifically require that the multifilament yarn be 2-ply or 1-ply, the specification does not give any reason as to why the instant invention requires 2-ply or 1-ply multifilament yarn. The use of 2-ply and 1-ply multifilament yarns affect

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the thickness of the material and are widely used in the art. 2-ply yarns that are twisted at regular intervals are also widely used in the art. The nature of 2-ply yarn twisted at regular intervals requires that the yarn have a coil shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize 1-ply and 2-ply multifilament yarn twisted at regular intervals having a coil shape in order to manufacture the band at the appropriate thickness because 1-ply and 2-ply multifilament yarn twisted at regular intervals having a coil shape are widely used in the art.

Dean discloses an open weave fabric. However, Kitamura teaches that seamless tubular fabrics are widely used for belts, bands, and other objects (col. 1, lines 15-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a seamless tubular fabric in the construction of Dean's band as taught by Kitamura because seamless tubular fabrics are widely used in the construction of bands.

Claim 6 is rejected under 35 U.S.C. 103(a) as being obvious over Dean (4,107,371) in view of Kitamura (5,387,300) in further view of Pickering et al. (4,981,161). Pickering et al. discloses monofilament yarn and multifilament yarn in one direction and multifilament yarn in the other direction (col. 3, lines 1-27). Monofilament and multifilament yarns used in the same direction help increase durability over many cycles of use (col. 2, lines 5-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize monofilament and

multifilament yarn in the same direction as taught by Pickering et al. in order to increase the durability of the band over many cycles of use.

Claims 7-8 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cho (6,115,844) in view of Dean (4,107,371) in further view of Kitamura (5,387,300).

In regard to claims 7-8, Cho discloses headwear comprising: a crown main body (fig. 2); a visor portion; and a sweatband (A) attached along the lower peripheral edge of the crown main body. The most important characteristic of the instant invention is that it is stiff enough in one direction to reinforce the soft structure of the hat while being flexible enough in the other direction to adapt to the shape of the hat. Dean discloses that multifilament yarns provide flexibility while monofilament yarns provide rigidity (col. 2, lines 5-8 and col. 3, lines 5-9) and that fabric that is relatively stiff in one direction is widely used in the production of apparel (col. 1, lines 11-13). The nature of a woven fabric allows for the weft and warp directions to be interchangeable. Because of this, it is not important that the monofilament yarn is in the warp direction and the multifilament yarn is in the weft direction. It is only important that the vertical direction comprises a monofilament yarn for support and the horizontal direction comprises a multifilament yarn for flexibility. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the monofilament yarn in the warp direction and the multifilament yarn in the weft direction as taught by Dean because the warp and weft directions are interchangeable as long as the monofilament yarn is used in the vertical direction and multifilament yarn is used in the horizontal direction.

Although Dean does not specifically require that the multifilament yarn be 2-ply or 1-ply, the specification does not give any reason as to why the instant invention requires 2-ply or 1-ply multifilament yarn. The use of 2-ply and 1-ply multifilament yarns affect the thickness of the material and are widely used in the art. 2-ply yarns that are twisted at regular intervals are also widely used in the art. The nature of 2-ply yarn twisted at regular intervals requires that the yarn have a coil shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize 1-ply and 2-ply multifilament yarn twisted at regular intervals having a coil shape in order to manufacture the band at the appropriate thickness because 1-ply and 2-ply multifilament yarn twisted at regular intervals having a coil shape are widely used in the art.

Dean discloses an open weave fabric. However, Kitamura teaches that seamless tubular fabrics are widely used for belts, bands, and other objects (col. 1, lines 15-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a seamless tubular fabric in the construction of Dean's band as taught by Kitamura because seamless tubular fabrics are widely used in the construction of bands.

In regard to claims 10 and 11, Dean discloses that the band is made of nylon and polyester (col. 2, lines 5-7, 17-18, and 35-40). Nylon and polyester are inexpensive, durable materials that are commonly used in the manufacturing of apparel. It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize nylon and polyester in the manufacturing of the band because nylon and



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polyester are inexpensive, durable materials commonly used in the manufacture of apparel.

Claim 12 is rejected under 35 U.S.C. 103(a) as being obvious over Cho (6,115,844) in view of Dean (4,107,371) in further view of Kitamura (5,387,300) in further view of Pickering et al. (4,981,161). Pickering et al. discloses monofilament yarn and multifilament yarn in one direction and multifilament yarn in the other direction (col. 3, lines 1-27). Monofilament and multifilament yarns used in the same direction help increase durability over many cycles of use (col. 2, lines 5-11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize monofilament and multifilament yarn in the same direction as taught by Pickering et al. in order to increase the durability of the band over many cycles of use.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-2, 4-8, and 9-12 have been considered but are moot in view of the new ground(s) of rejection.

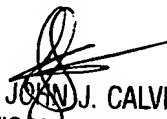
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Kauffman whose telephone number is (571)272-4988. The examiner can normally be reached on M-F every week.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Calvert can be reached on (571)272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BKK  
12/21/05

  
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